

Korobitsin, V.G.

USSR/General and Special Zoology. Insects. Injurious Insects and Ticks. Pests of Fruit and Berry Crops

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49623

Author : Korobitsin V.G., Otrokov L.S.
Inst : State Nikita Botanical Garden
Title : An Experiment in the Control of Fruit Garden Pests in the Kolkhoz "Zavoty Stalina".

Orig Pub : Byul. nauchno-tekhn. inform. Gos. Nikitsk. botan. sad, 1957, No 2, 32-35

Abstract : In 1956, the spraying of 35 ha. of a garden during March 9-19 with an 8% carbolineum emulsion and during April 22-30 with a 0.05% dinitro-o-cresol solution considerably decreased the number of wintering eggs of the brown mite (*Bryobia redikorzevi* Reck). However, on May 21 there were already 1.09 mites per leaf. A second spraying with dinitro-o-cresol on May 21-27 decreased the number of the mites to 0.24 by the third

Card : 1/3

USSR/General and Special Zoology. Insects. Injurious Insects and Ticks. Pests of Fruit and Berry Crops
APPROVED FOR RELEASE 06/14/2000 CIA-RDP86-00513R000824730005-2"

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49623

day. The first spraying on June 12-17 against the leaf-roller moth with Mercaptophos (0.05-0.1%), combined with a 4% suspension of 5.5% DDT dust, decreased the number of the mites to 0.006. The second and third sprayings on July 5-12 and on July 24-31 with DDT suspensions combined with ether sulfonate (0.3%) eliminated the brown and the hawthorn mites from the garden. A fourth spraying with a 4% DDT suspension was carried out on August 12-18. On August 24, the damage by the leaf-roller moth to fruit of various grades was not more than 1% on the trees and 304% in the removable crop. The damage to the fruit of the Champagne Rennet apple was, respectively, 2% and 5-6%. Due to an increase in the quality of the apples, 1 kg cost two rubles

Card : 2/3

KOROBITSYN, V. [Korobytsyn, V.], nauchnyy sotrudnik

Our green treasure. Znan. ta pratsia no.8:22 Ag '59.
(MIRA 13:2)

1. Gosudarstvennyy Nikitinskiy botanicheskiy sad.
(Crimea--Botanical gardens)

KOROBITSYN, V.G., nauchnyy sotrudnik

Means for controlling the Quonymas scale. Zashoh.rast.ot vred.
1 bol. 5 no.3:26-27 Mr '60. (MIRA 16:1)

1. Nikitskiy botanicheskiy sad.
(Spindle tree—Diseases and pests)
(Scale insects—Extermination)

KOROBITSYN, V.M.

Criticism of some aspects of the categories of good and evil in the contemporary bourgeois ethics. Trudy MTIPP no.20:109-125 '63.

The development of the socialist state into the workers' self-government. Ibid.:154-160

The CPSU in the period of the large-scale building of communism. Ibid.:181-193 (MIRA 17:4)

KOROBITSYN, V. T.

Phenomena of Farabiosis Accompanying Stomach Ulcers.

VOYENNO-MEDITSINSKIY ZHURNAL (MILITARY MEDICAL JOURNAL), No 12, 1954. p.23

KOROBITSYN, V.T., podpolkovnik meditsinskoy sluzhby

Nature of disorders of the gastric secretion mechanisms. Voen.
med.zhur. no.5:65-68 My '59. (MIRA 12:8)

(GASTRIC JUICE,

secretion, disord. (Rus))

KOROBITSYN, V. T.

Cand Med Sci - (diss) "Dynamics of gastric secretion and reflex activity of skeletal muscles in persons ill with ulcerous illness and chronic gastritis." L'vov, 1961. 20 pp; (L'vov State Medical Inst); 200 copies; price not given; (KL, 5-61 sup, 203)

KOROBITSYN, V.T., podpolkovnik med.sluzhby

Clinical evaluation of the type of gastric secretion. Voen.-med.
zhur. no. 2:77 F '61. (MIRA 14:2)

(STOMACH—SECRECTIONS)

SECHERBAKOV, N.M.; KOROBYTSIN, V.T. (Odessa)

Cross reflexes in patients with prolonged unilateral algesic
stimulations. Zhur.nevr. i psikh. 66 no.1:17-23 '66.

(MIRA 19:1)

1. Submitted December 28, 1964.

KOROBITSYN, Ya. K. - prepodavatel' fiziki i elektrotehniki.

Practical training in electric engineering at a plant. Politekh.
obuch. no.3:11-14 Mr '58. (MIRA 11:2)

1. Srednaya shkola No.99, Kazan'.
(Education, Cooperative)
(Electric engineering--Study and teaching)

USSR/Chemistry - Hydration
Chemistry - 2-Butyne-1, 4-Diol

Oct 48

"Hydration of 2-Butyne-1, 4-Diol," Yu. K. Yur'yev,
I. K. Korobitsyna, Ye. K. Brige, Lab of Org Chem
Imeni Acad N. D. Zelinskiy, Moscow State U imeni
M. V. Lomonosov, 1 2/3 pp

"Dok Ak Nauk SSSR" Vol LXII, No 5

Hydration of 2-butyne-1, 4-diol in methanol in
presence of mercuric sulfate or its solution in
27% sulfuric acid gave a 37% theoretical yield of
4-methoxy-1-butanol-2-one, b.p. 86.5 at 9 mm,
d (20/4), 1.095, n (20/D), 1.4395. Use of other

53/49725

USSR/Chemistry - Hydration (Contd) Oct 48

solvents resulted in resinification. Submitted
by Acad A. N. Nesmeyanov, 13 Aug 48.

53/49725

PA 53/49725

KOROBITSYNA, I. K.

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CA

Hydration of 2-butyne-1,4-diol. Yu. K. Yur'ev, I. K. Kopylovskaya, and E. K. Brige. *Doklady Akad. Nauk S.S.S.R.* 63, 645 7 (1948). Hydration of 2-butyne-1,4-diol (I) in MeOH in the presence of Hg sulfate gives 4-methoxy-1-butanol 2-ol (II). I (13 g.) was added in 32 g. MeOH to 32 g. MeOH and 2 g. Hg sulfate with cooling, then stirred 8 hrs. with addn. of two 2-g. portions of Hg sulfate, neutralized with Na₂CO₃, filtered, dried, and distd., yielding 37% II, b. 86.3-7.5°, d₄²⁰ 1.095, n_D²⁰ 1.4395. The result was the same if 37% H₂SO₄ was used for the medium. II gives a 2,4-dinitrophenylhydrazone, m. 27° 0' (from EtOH). The product results from migration of the OH group to give a 1,2-diol of allenic type, which rearranges to an acetalon and this addn. MeOH to give II. (S. M. Kozlov)

ASSOCIATE METALLURGICAL LITERATURE CLASSIFICATION

CA

10

Synthesis of amines of the cyclohexane series. Yu. K. Vasyev and I. K. Korshakova. *Trudov Akad. Nauk SSSR, Ser. Khim. Nauk*, No. 2, 87 (1959).
 HCONH_2 , prepd. by slow concn. of 115 g. HCOOH and 110 g. $(\text{NH}_4)_2\text{CO}_3$, is treated at 100°C with 50 g. cyclohexanone and heated 7 hrs. with treveling of the solid. ketone after drying; after diln. and refluxing the solid. formyl deriv. 5 hrs. with 75 ml. concd. HCl , 30% KOH is added to isolate 40% cyclohexylamine, bp $133-4^\circ$, n_D^{20} 1.4601, d_4^{20} 0.8650, and 15% dicyclohexylamine, bp $123-4^\circ$, n_D^{20} 1.4862, d_4^{20} 0.9114. HCO_2NHPh (81 g.) treated similarly with 30 g. cyclohexanone gave 33% *N*-ethylidicyclohexylamine, bp $114-15^\circ$, n_D^{20} 1.4850, d_4^{20} 0.8687; *picrate*, m. 137° (from EtOH). Similarly, HCO_2NHPh (from 107 g. PhNH_2 and 125 g. HCOOH), and 50 g. cyclohexanone gave 40% *N*-cyclohexyl-aniline, bp $138-5$ to 5° , n_D^{20} 1.5010, d_4^{20} 1.0155.
 G. M. Kovalasoff

1951

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CA

Simultaneous catalyst; dehydration of 2-butyne-1,4-diol with ammonia and with hydrogen sulfide. Catalytic dehydration of *cis*-2-butyne-1,4-diol. Yu. K. Yurev, I. K. Korobitsyna, and E. K. Brige (M. V. Lomonosov State Univ., Moscow). *Zhur. Obshch. Khim.* (J. Gen. Chem.) 28, 744-8 (1950); cf. C. A. 43, 5084r. -- Passage of (I) at 6-8 drops/min. in N over Al_2O_3 at 400° gave much C, some CH_4 , H_2O , and traces of furan (detected qualitatively). At 350° I gave CH_4 , detected as $(CH_3)_2S$ by absorption in $Br-CHCl_3$. I (10 g.) treated as above over aluminosilicate catalyst at 6 drops/min. with concurrent passage of NH_3 , gave 0.3-0.75 g. pyrrole, the max. yield being obtained at 400°; the use of a H_2S atm. at 350° over Al_2O_3 similarly gave a trace of thiophene, and at 400° 0.5 g. was obtained. Hydrogenation of I over Raney Ni in EtOH gave 80.3% *cis*-2-butyne-1,4-diol, b_p 115-16°, n_D^{20} 1.4734, d_4^{20} 1.0063; this (10 g.) heated with 2 g. aluminosilicate catalyst to 160-70° gave 4 g. nonaq. distillate, yielding on distn. 33% dihydrofuran, b_p 65.5-6.0°, d_4^{20} 0.9224, n_D^{20} 1.4240, which with Br in CCl_4 with strong cooling gave 3,4-dibromotetrahydrofuran, b_p 90.5-1.6°, n_D^{20} 1.5440, d_4^{20} 2.0114, while the remainder of the catalyzate yielded 23% $MeCH=CHCHO$, b_p 100-2°, n_D^{20} 1.4352, d_4^{20} 0.851 (semicarbazone, m. 180-7°). G. M. Kosolapoff

CA

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Comparative reactivity of ammonia and aniline in reaction with furan and furanidine. XXVIII. Yu. K. Yur'ev, L. B. Korobitsyn, and M. I. Kurimova (M.V. Lomonosov State Univ., Moscow). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 1041 (1946); cf. *Uchenye Zapiski Moskovskogo Univ.* in M.V. Lomonosov No. 79, 81, 86, 145 (1945); C.A. 44, 5690k. On the basis of the comparative reactivity of NH_3 and PhNH_2 in simultaneous obsn. to furan or furanidine the following is noted: Furan with mixts. of NH_3 and PhNH_2 yields only 1-phenylpyrrole, and only traces of pyrrole; furanidine gives only 1-phenylpyrrolidine, and traces of pyrrolidine. The results are due to more ready opening of polar C-O links in the ring by the weaker base (PhNH_2). The reactions were performed in a tube over Al_2O_3 at 400-500° with the vapors of the desired N-derivs. for gas flow. Yields of 18-24% of phenylated products were obtained. 1-Phenylpyrrole, bp 91.5°, m. 61.2°; 1-phenylpyrrolidine, bp 100-110°, m. 1-5702, d₄²⁰ 1.0152. Passage of $\text{PhNH}_2/\text{NH}_3$ over Al_2O_3 in a N stream at 400° readily gives a mixt. of NH_3 (90% of theory) and PhNH_2 (61% isolated), which can be used for the competition exper. Reactions with PhNHNH_2 and furanidine gave a small yield of carbazole, m. 210-6°, as a by-product.

A. M. Koudachov

KROBITSYNA, I. K.

"Investigations in the Field of Conversion of Five-Membered Oxygen-Containing Heterocycles and 1,4-Diols in Nitrogen-Containing Heterocyclic." Sub 1 Jun 51, Moscow Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow during 1951. *Cand. Chemical Sci.*

SO: Sum. No. 480, 9 May 55

IVANOV, V.I., doktor tekhnicheskikh nauk; KORSHAK, V.V., doktor khimicheskikh nauk, otvetstvennyy redaktor; KOROBITSYNA, I.K., redaktor izdatel'stva; KISELEVA, A.A., tekhnicheskyy redaktor

[Macromolecules] Molekuly-giganty. Moskva, Izd-vo Akademii nauk SSSR, 1951. 116 p. (High molecular weight compounds) (MIRA 9:11)

C.A.

10

Activity of amines in transformations of oxygen-bearing
into nitrogen-bearing heterocycles. XXXIII. Yu. K.
Yur'ev and I. K. Korshakova (Moscow State Univ.). Zhur.
Obshch. Khim. (J. Gen. Chem.) 21, 973-80 (1951); cf.
C.A. 45, 5680b, 5694c. — Comparative reactivity studies of
PhNH₂ and aliphatic amines with furaniline (I) showed
that in reactions of I with mixed EtNH₂ and PhNH₂, PrNH₂,
and PhNH₂, BuNH₂ and PhNH₂, and cyclohexylamine and
PhNH₂, there is formed 1-phenylpyrrolidine (II), while in
reactions with secondary amines (PhNHEt, PhNHPr,
PhNHBu, and cyclohexylamine), are formed II, alk-
enes, and traces of divinyl (III). Passing 10 g. I, 12 g. PhNH₂,
and 6 g. BuNH₂ at 6-8 drops/min. over Al₂O₃ in N at 400° gave
0.5 g. I-methylpyrrolidine, bp 102-10° (picrate, m. 185-6°),
and 7 g. II, b. 105-6°, n_D²⁰ 1.5820, d₄²⁰ 1.018, as well as 18 g.
PhNH₂ (the amts. are from 2 combined runs). I (9 g.)
and 15 g. PhNHEt similarly gave 55% PhNH₂ and 11% II,
as well as C₆H₅ (isolated as the dibromide, 66%) and III
(isolated as the tetrabromide). I (5 g.), 4 g. PrNH₂, and
0.5 g. PhNH₂ similarly gave 88% PhNH₂ and 10% II.
Similarly 9 g. I and 17 g. PhNHPr gave 60% PhNH₂, 8.5%
II, C₆H₅ (isolated as the dibromide, 78%), and a trace of
III (as above). I, BuNH₂, and PhNH₂ likewise gave
54.5% PhNH₂ and 4% II; I with PhNHBu similarly
gave 57% PhNH₂ and 13% II, as well as 60% C₆H₅ and a
little III. I with PhNH₂ and cyclohexylamine (2:1:1 molar
ratio) gave 60.5% cyclohexene, 60% PhNH₂, and 4% II;
at 1:1:1 ratio 67%, 62.5%, and 60%, resp., were formed.
A 1:1 molar mixt. of I with cyclohexylamine gave 60% cyclo-
hexene, 56% PhNH₂, and 6% II. G. M. Kosolapoff

KOROBITSYNA, I. K.

USSR/Chemistry - Cyclic Amines

May 52

"XVIII. The Mechanism of Joint Catalytic Dehydration of Furanidine and Secondary Amines," Yu. K. Iur'yev, I. K. Korobitsyna, Org Chem Lab im Zelinskiy, Moscow State U

Zhur Obshch Khim, Vol 22, No 5. pp 852-859

In the reaction between furanidine and secondary amines in the presence of Al_2O_3 at 400° , hydrolysis of the secondary amine takes place first. The primary amine thus formed then enters into reaction with the furanidine.

263734

YUR'YEV, YU. K., KOROBITSYNA, I. K., SAVINA, L. A.

Furanidines

Synthesis and transformation of -furanidone. Dokl. AN SSSR 86 no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1953, Unclassified.

USSR.

Mechanism of the reaction of tetrahydrofuran with secondary amines. Yu. K. Vor'ev and I. K. Korobitsyna. Vestnik Mosk. Univ. 8, No. 5, Ser. Fiz.-Mat. i Estestven. Nauk No. 3, 73-04 (1953); cf. C.A. 48, 2682f. — By passing 20.7 g. $\text{PhNH}(\text{CH}_2)_2\text{CH}_3$ (I) at the rate of 0.3-0.4 ml./min. in a N atm. over specially activated Al_2O_3 at 260° and collecting the product in aq. Br were isolated 1 g. PhNH_2 and 12.5 g. 1-phenylpyrrolidine (II). Under the same conditions from 14.5 g. $\text{Et}_2\text{N}(\text{CH}_2)_2\text{OH}$ (III) were isolated 1 g. Et_2NH , 4.2 g. 1-ethylpyrrolidine (IV), 3 g. $(\text{CH}_3)_2\text{Br}_2$, and 0.4 g. $(\text{BrCH}_2\text{CH}_2)_2$ (V). By passing 2 g. I over ordinary Al_2O_3 at 400° at the same rate as above were isolated 0.3 g. V, 1 g. PhNH_2 , and 1 g. II. Similarly III gave 26% C_2H_5 (isolated as the dibromide), 13% IV, and 1 g. V. It is assumed that in all these reactions tetrahydrofuran is first formed, and then reacts with the secondary amines produced to give pyrrolidines. G. Meguerian

USSR.

Mechanism of the reaction of tetrahydrofuran with secondary amines. Yu. K. Vof'ev and I. K. Kombeysva. *Vestnik Akad. Nauk SSSR, Ser. Khim. Nauk*, No. 3, 73-6 (1953); cf. *C.A.* 48, 2687. — By passing 20.7 g. $\text{PhNH}(\text{CH}_2)_2\text{CH}_3$ (I) at the rate of 0.3–0.4 ml./min. in a N atm. over specially activated Al_2O_3 at 260° and collecting the product in aq. Br were isolated 1 g. PhNH_2 and 12.6 g. 1-phenylpyrrolidine (II). Under the same conditions from 14.5 g. $\text{Et}_2\text{N}(\text{CH}_2)_2\text{OH}$ (II) were isolated 1 g. Et_2NH , 4.2 g. 1-ethylpyrrolidine (IV), 3 g. $(\text{CH}_3)_2\text{Brh}$, and 0.4 g. $(\text{BrCH}_2\text{CH}_2)_2$ (V). By passing 7 g. I over ordinary Al_2O_3 at 400° at the same rate as above were isolated 0.3 g. V, 1 g. PhNH_2 , and 1 g. II. Similarly III gave 36% C.H. (isolated as the dibromide), 13% IV, and 1 g. V. It is assumed that in all these reactions tetrahydrofuran is first formed, and then reacts with the secondary amines produced to give pyrrolidines. G. Meguerian

KOROBITSYNA, I. K.
USSR/Chemistry - Synthesis

Card 1/1 Pub. 151 - 35/36

Authors : Korobitsyna, I. K.; Yuryev, Yu. K.; and Nefedova, O. I.

Title : Synthesis and reactions of 3,4-diketones of the tetrahydrofuran series

Periodical : Zhur. ob. khim. 24/1, 188-193, Jan 1954

Abstract : The oxidation of two ketones of the tetrahydrofuran series - 2,2,5,5,-tetramethyltetrahydrofuranone-3 and 2,5-dimethyl-2,5-diethyltetrahydrofuranone-3 having the tertiary carbon atoms in 2,5-position - with SeO_2 was investigated. It was found that this oxidation process can serve as a suitable preparatory method for the derivation of diketones in which the carbonyl groups are oriented in 3,4-positions. It was also established that 3,4-diketones of the tetrahydrofuran series can be used as basic substances for the synthesis of condensed heterocyclic systems which include in their composition tetrahydrofuran and quinoxaline, dihydropyrazino or imidazol cycles. Eight references: 4-French; 3-USSR and 1-USA (1832-1951).

Institution : State University, Moscow

Submitted : June 25, 1953

Korobitsyna, I. K.

USSR/Chemistry - Synthesis

Card 1/1 Pub. 151 - 35/36

Authors : Korobitsyna, I. K.; Yuryev, Yu. K.; and Nefedova, O. I.

Title : Synthesis and reactions of 3,4-diketones of the tetrahydrofuran series

Periodical : Zhur. ob. khim. 24/1, 188-193, Jan 1954

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Institution : State University, Moscow

Submitted : June 25, 1953

KOROBITSYNA, I.K.

USSR/ Chemistry

Synthesis processes

Card : 1/1 Pub. 151 - 29/35

Authors : Yuryev, Yu. K., Lukina, E. M., and Korobitsyna, I. K.

Title : Beta-furanidone in the synthesis of beta-alkyl- and beta-arylfuranidenes

Periodical : Zhur. ob. khim. 24, Ed. 7, 1238 - 1241, July 1954

Abstract : The participation of beta-furanidone in the synthesis of beta-alkyl- and beta-aryl furanidenes, was investigated. The reaction between beta-furanidone and organo-magnesium compounds, is described. It was concluded, on the basis of the derived hitherto unknown beta-n-arylfuranidene and beta-phenylfuranidene, that such reaction would be suitable for the synthesis of beta-alkyl- and beta-aryl-furanidenes. Four USSR, 2 USA and 1 German reference.

Institution : State University, Moscow

Submitted : January 28, 1954

KOROBITSYNA, I.K.

USSR/ Chemistry Synthesis processes

Card : 1/1 Pub. 151 - 29/35

Authors : Yuryev, Yu. K., Lukina, E. M., and Korobitsyna, I. K.

Title : Beta-furanidone in the synthesis of beta-alkyl- and beta-arylfuranidenes

Periodical : Zhur. ob. khim. 24, Ed. 7, 1238 - 1241, July 1954

Abstract : The participation of beta-furanidone in the synthesis of beta-alkyl- and beta-aryl furanidenes, was investigated. The reaction between beta-furanidone and organo-magnesium compounds, is described. It was concluded, on the basis of the derived hitherto unknown beta-n-arylfuranidene and beta-phenylfuranidene, that such reaction would be suitable for the synthesis of beta-alkyl- and beta-aryl-furanidenes. Four USSR, 2 USA and 1 German reference.

Institution : State University, Moscow

Submitted : January 28, 1954

KOROBITSYNA, I. K.

USSR/Optics - Spectroscopy.

K-6

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7854

Author : Akishin, P.A., Rambidi, N.G., Korobitsyna, I.K.
Kondrat'yeva, G.Ya., Yur'yeva, Yu.K.

Title : Raman Spectra of Heterocyclic Compounds. II.

Orig Pub : Vestn. Mosk. un-ta, 1955, No 12, 103-108

Abstract : Raman spectra were obtained with a photometric estimate of the intensity of the lines of the following compounds: furan Δ 3-dihydrofuran, tetrahydrofuran, 2,2,5,5-tetramethylfuranide, Δ 2-dihydropyran, tetrahydropyran, and 1,4-dioxane. Comparison of the spectra and of the literature data made it possible to establish the characteristic frequencies of fully symmetrical oscillations of these cycles. The integral intensities and the widths of the lines were measured for these frequencies. It was established that the intensity of the band reduces regularly upon transition from the softer to the harder cycle:

Card 1/2

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USSR/Optics - Spectroscopy.

K-6

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7854

the cyclohexane 801 (250 units), tetrahydropyran 816 (242) dioxane 835 (223), and the value of the frequency, in accordance with the theory, increases. For six-term cycles the width of the lines remains within the experimental accuracy constant, and for five-term lines it diminishes with the hardness of the cycle. The intensity of the C = C frequencies in the spectra of the investigated compounds is close to the values obtained for the isolated C=C bonds of the alkanes and cyclanes.

Card 2/2

- 80 -

KOROBITSYNA, I.K.; YUR'YEV, Yu.K.; CHEBURKOV, Yu.A.; LUKINA, Ye.M.

Preparation of bispyran-type 3,4-diketones from the furanidine series.
Zhur.ob.khim. 25 no.4:734-738 Ap '55. (MIRA 8:7)

1. Moskovskiy Gosudarstvennyy universitet. (Ketones)

APPROVED FOR RE

6-00513R000824730005-2"

"APPROVED FOR RELEASE: 06/14/2000

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824730005-2"

KOROBITSYNA, I. K.

Reactions of the carbonyl group of β -furanidone. I. K. Korobitsyna, Yu. K. Yurev, and Yu. M. Polikarpov (State Univ., Moscow). Zhur. Obshch. Khim. 25, 1671 (1955); cf. C.A. 49, 12430k; 50, 3381f. To the lotrich complex, from 7.2 g. Mg and 32.7 g. EtBr in 250 ml. Et₂O treated with CuI₂, was added with cooling 25.6 g. β -furanidone (I), in Et₂O and the mixt., after 24 hrs., was treated with ice-HCl and extd. continuously with Et₂O, yielding 40% unreacted I and 5.1 g. bis(2-hydroxy-2-furanidyl)acetylene, b. 196-9°, m. 109.5-10.5° (from Me₂CO). I (6.5 g.) and 9.6 g. HC(OEt)₂ with a drop of H₂SO₄ gave 54% I di-Et ketal, b. 57-8°, n_D²⁰ 1.4279, d₄ 0.9930. Refluxing 8.8 g. I, 7 g. (CH₃OH)₂, 50 ml. CuI₂, and 0.01 g. p-MeC₆H₄SO₃H with azeotropic sepn. of H₂O gave in 8 hrs. 90% I ethylene ketal, C₁₂H₁₀O₄, b. 79-9.5°, n_D²⁰ 1.4501, d₄ 1.1465. Passage of dry HCl at 0° into 8.6 g. I and 20 g. EtSH gave 45% I di-Et thioketal, b. 60-3.5°, n_D²⁰ 1.5230, d₄ 1.0506. This with 30% H₂O₂ in AcOH gave the corresponding disulfone, C₁₂H₁₀O₄S₂, m. 103.5-10° (from AcOH). Similarly (CH₃SH)₂ and I treated with dry HCl gave 54% I ethylene thioketal, b. 98-8.5°, n_D²⁰ 1.5750, d₄ 1.2029, which with H₂O₂ oxidized to the corresponding disulfone, C₁₂H₁₀O₄S₂, m. 151.5-5° (from AcOH). Reaction of β -thiophanone and (CH₃SH)₂ similarly gave 76% β -thiophanone ethylene thioketal, b. 128-8.5°, n_D²⁰ 1.6317, d₄ 1.2040, which with H₂O₂ gave the 95% trisulfone, decomp. 210° (from AcOH). G. M. Koschepoff

KOROBITSYNA, I.K.

Subject : USSR/Chemistry AID P - 3582
 Card 1/1 Pub. 152 - 19/20
 Authors : Yur'yev, Yu. K., A. V. Arbatskiy, I. K. Korobitsyna,
 and V. M. Andreyev
 Title : Preparation of N-phenylpyrrolidine from 1,4-butanediol
 and aniline in the presence of aluminosilicate
 Periodical : Zhur. prikl. khim., 28, 7, 781-782, 1955
 Abstract : Under optimum reaction conditions, the yield of
 N-phenylpyrrolidine obtained was 68.1%. The prepara-
 tion is described in detail. One table, 5 references,
 all Russian (1937-1950).
 Institution : None
 Submitted : Je 30, 1954

KOROBITSYNA, I.K.

REUTOV, Oleg Aleksandrovich; KOROBITSYNA, I.K., redaktor: MULIN, Y. V.
 tekhnicheskii redaktor

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824730005-2"

[Theoretical problems in organic chemistry.] Teoreticheskie
 problemy organicheskoi khimii. [Moskva] Izd-vo Mosk.univ., 1956.
 492 p.

(Chemistry, Organic)

(MLRA 10:5)

YUR'YEV, Yu.K.; KOROBITSYNA, I.K.

Comparative activity of aliphatic amines and ammonia in the conversion of furanidine into pyrrolidine and N-substituted pyrrolidines. Vest. Mosk. un. Ser. mat. mekh., astron., fiz., khim. 11 no.2:189-193 '56. (MIRA 10:12)

1. Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta.

(Ammonia) (Furan) (Pyrrolidine)

KOROBITSYNA, I. K.

USSR/ Organic Chemistry - Synthetic organic chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11649

Author : Korobitsyna I.K., Yur'yev Yu.K., Shvedova S.N.
Title : Synthesis of 1,4-Diaminobutanone-2.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 6, 1660-1662

Abstract : 51 g of 1, 4-dichlorobutylene-2 are stirred for 8 hours with 2 liters of concentrated NH_4OH , acidified with concentrated HCl , evaporated 70 hours, extracted with ether; yield of 1,4-diaminobutylene-2 (I) 37%, BP 82-84°/6 mm, MP 41-43°. 5.4 g I in 360 ml 10% solution KOH are shaken for 3 hours with 18.4 g $\text{C}_6\text{H}_5\text{COCl}$ to convert to N,N'-dibenzoyl-1, 4-diaminobutylene-2 (II), yield 90.3%, MP 210° (from alcohol); 15 g II, 900 ml 90% CH_3COOH and 6 g H_2SO_4 allowed to stand for 12 hours, heated 20 hours at 70-80°, filtered, solvent evaporated, added 300 ml water; yield of N,N'-dibenzoyl-1, 4-diaminobutanone-2 (III) 72%; 3 g III boiled 30 hours with 75 ml 98% CH_3COOH + 75 ml concentrated HCl (added four times 10 ml of HCl). Solution decolorized with charcoal, evaporated in vacuum, and extracted with ether. To almost dry residue added 35 ml alcohol; at 0° the hydrochloride of 1,4-diaminobutanone-2 separates out, yield 65%, MP 215-216° (decomposition).

Card 1/1

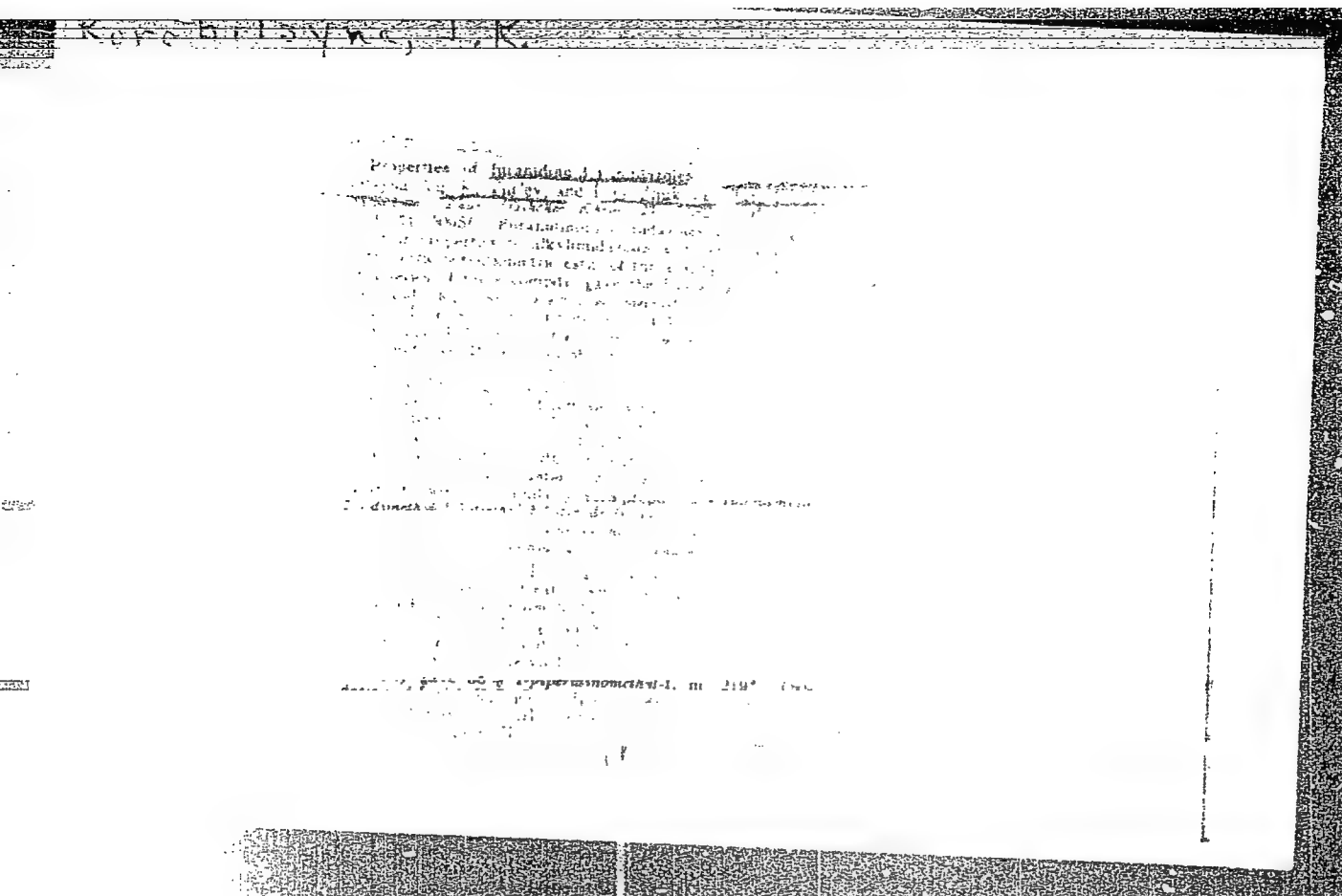
111. Effect of the duration of the
action of toxicants on the neurocytic system.
N. I. Zubova, Yu. K. Yur'ev, Yu. A. Chelintsev.
B. M. Luzina. (State Univ., Moscow, Zhen. lab.)
Ann. 24, 1954, 63 (1955).

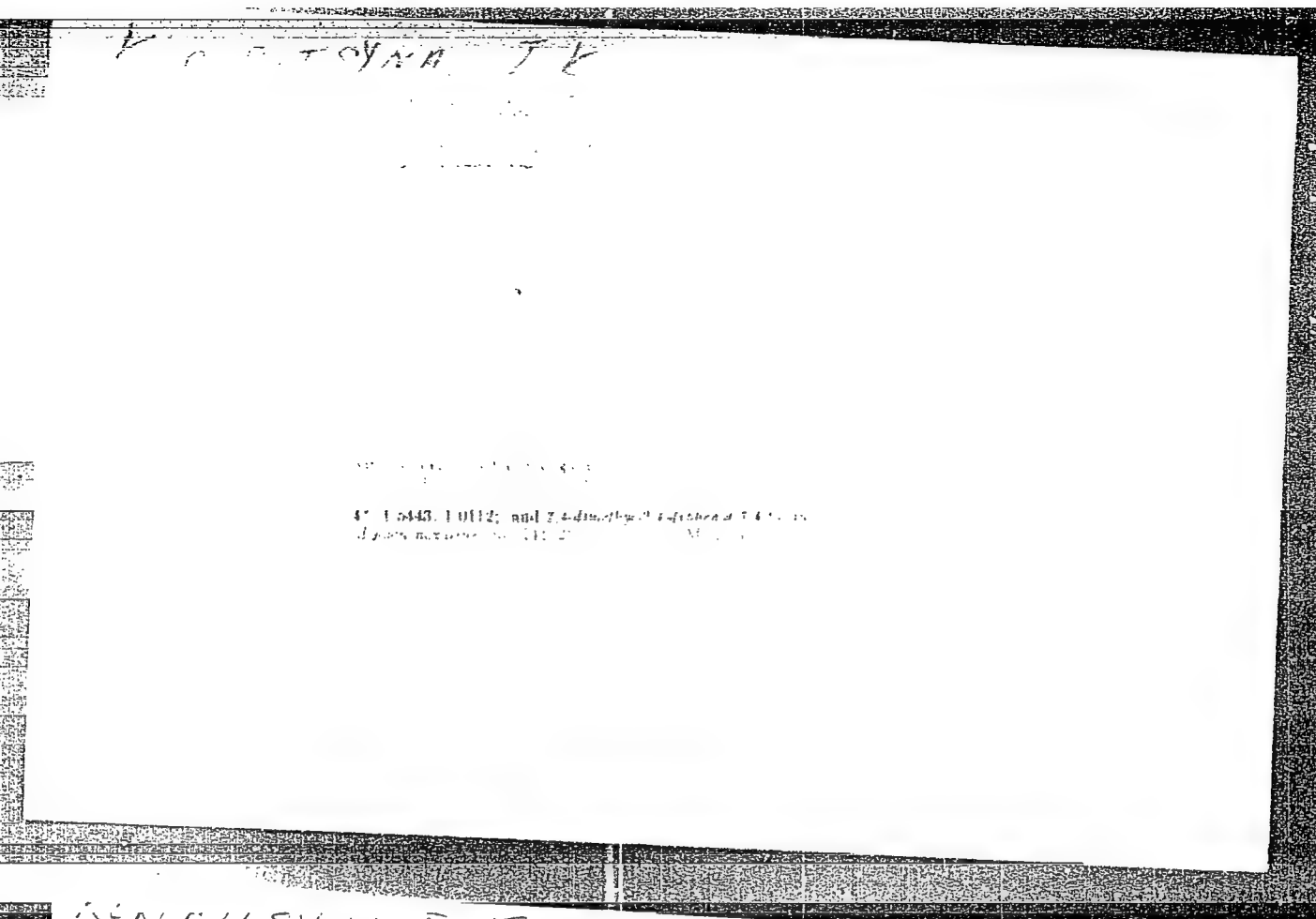
5-hydroxy-5,5,7,7-tetra-
 methyl-2,4,6-triazine (I), m. 182.5-3.5°,
 which (0.5 g.) refluxed in 10 ml. 40% NaOH 3 hrs. gave, on
 acidification with AcOH 78% 5-hydroxy-5,5,7,7-tetra-
 methyl-2,4,6-triazine (II), R. OH, m.
 214° (from petr. ether). II as above gave 65% 5-hydroxy-
 5,5,7,7-tetra-methyl-2,4,6-triazine (III), m.
 191.5-5°. II (1.3 g.) and 0.85 g. thiosemicarbazide-HCl
 (III) in 8 ml. pyridine and 3 ml. H₂O gave 55% II monothio-
 semicarbazone, m. 150-1°. Refluxing 1.01 g. II, 0.55 g. III
 and 10 ml. AcOH 1 hr., followed by 20 ml. 40% NaOH and
 refluxing 2 hrs. gave 70% 5-hydroxy-5,5,7,7-tetra-methyl-
 2,4,6-triazine (I), m. 182.5-3.5°. Similar to I
 gave on refluxing with 10 ml. AcOH 1 hr. and quenched
 in H₂O gave 98% I monothiosemicarbazone, m. 182.5-3.5°,

KOROBITSYNA, I.K.

YUR'YEV, Yuriy Konstantinovich; KOROBITSYNA, I.K., red.; LOMILINA, L.N.,
tekhn.red.

[Practical work on organic chemistry] Prakticheskie raboty
po organicheskoi khimii. [Moskva] Izd-vo Mosk.univ. Pt.1. 1957.
126 p. Pt.2. 1957. 230 p. (MIRA 11:1)
(Chemistry, Organic--Synthesis)





KOROBITSYNA, I. K.

AUTHORS:

Korobitsyna, I. K. , Zhukova, I. G. , Kuvshinova, V. A. ,
Gaydamovich, N. N. , Yur'yev, Yu. K. 20-2-26/60

TITLE:

Synthesis and Isomerization of Enol Acetates of β -Furanidons
(Sintez i izomerizatsiya enolatsetatov β -furanidonov)

PERIODICAL:

Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp. 327-330
(USSR)

ABSTRACT:

The derivatives of the enolic form of tetrahydrofuranon-3 (β -furanidon) and of its homologues have hardly been investigated at all. The authors of the paper under review, in order to produce the acetylic derivatives of the enolic form, used such ketones of the β -furanidon series in which only one single methylene group stands in the α -position with respect to the carbonyl group. This made it possible to obtain only one enolic acetate with a position of the double bond that was known in advance. Isopropenylacetate was used as acetylating substance. So far, this type of the interesting β -furanidon derivatives has not been described. The authors of the paper under review examined the behavior

Card 1/3

Synthesis and Isomerization of Enol Acetates of β -Furanidons 20-2-26/60

of these enolic acetates with respect to halogenation and isomerization. At chlorine blowing through 2,2,5,5-tetramethylfuranidon-3-enolacetate, or through its solution in chloroform or absolute ether, there is produced at -5° a monochlorine-ketone of the furanidine series, i.e. 4-chlorine-2,2,5,5-tetramethylfuranidon-3. This reaction is of fundamental importance, but it has no preparational significance. One of the most interesting reactions is the isomerization of the thermal or catalytic enolacetate-ketones into β -diketones. In triborofluoride is let through cooled enolic acetate at -40 to -20° , no isomerization takes place. At -10 to -5° , on the other hand, after a certain period of induction a turbulent reaction takes place as well as a total resinification of the reaction mixture. If the same enolic acetate is let through a glass tube, which is filled with wadding of glass and heated up to a temperature of 500° (but not below) then an isomerization into 4-acetyl-2,2,5,5-tetramethylfuranidon-3 takes place. At higher temperatures the yield decreases from 36.5 % to 5 - 10 %. As a matter of fact, it is split into a ketone and a ketene. The production of a cupric salt and of the derivatives of the 4-acetyl-2,2,5,5-tetramethyl-

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SOV/79-29-2-69/71

AUTHORS: Korobitsyna, I. K., Pivnitskiy, K. K., Yur'yev, Yu. K.

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)
 Synthesis of Mono and Diketones of the Tetrahydropyrane Series From
 Furanidones-3 and Furanidindiones-3,4 (Sintez mono- i diketonov
 ryada tetragidropirana iz furanidonov-3 i furanidindionov-3,4)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 691-693 (USSR)

ABSTRACT: In continuation of their earlier works and basing on the experience gathered concerning the synthesis and properties of the ketones of the tetrahydrofuran series, the authors carried out the reaction of diazomethane solved in ether (7.2 g, 21 % excess) with 20 g 2,2,5,5-tetramethylfuranidone-3 in ether in the presence of methanol (at 20°C, 3 days) and obtained 3.95 g 2,2,6,6-tetramethyl tetrahydropyrone-3 (18 % yield, calculated for the ketone introduced into the reaction, besides traces of 2,2,6,6-tetramethyl tetrahydropyrone-4 (Scheme 1) (Ref 2). On the action of diazomethane upon 2,2,5,5-tetraalkyl furanidindione-3,4, the β -diketones forming with the extension of the cycle are methylated by diazomethane, which fact leads to the methyl ethers of 2,2,5,5-tetraalkyl tetrahydropyranidiones-3,5. Thus, for example, the methyl ether of 2,2,6,6-tetramethyl tetrahydropyranidione-3,5

Card 1/2

Letter to the Editor. Synthesis of Monc and Diketones of the Tetrahydropyrane
Series From Furanidones-3 and Furanidinuiones-3,4

SOV/79-29-2-69/71

was obtained on the action of diazomethane solved in ether upon 2,2,5,5-tetramethyl furanidindione-3,4. The hydrolysis of the product with hydrochloric acid yielded 2,2,6,6-tetramethyl tetrahydropyrandione-3,5, which is soluble in alkali lye. The reaction carried out according to scheme 2 of α -diketones with diazomethane is described by only one example in publications, namely in the case of camphor quinone (Ref 3).- There are 3 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: October 29, 1958

Card 2/2

5(3)

AUTHORS:

Korobitsyna, I. K., Severina, T. A., Yur'yev, Yu. K. SOV/79-29-6-42/72

TITLE:

Synthesis of the 4-Oxymethylene-2,2,5,5-tetraalkyl Furanidones-3
(Синтез 4-оксиметилена-2,2,5,5-тетраалкилфуранидон-3)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6,
pp 1960 - 1964 (USSR)

ABSTRACT:

In continuation of a previous paper (Ref 1) the authors describe the synthesis of the β -ketoaldehyde of the 4-formyl-2,2,5,5-tetraalkyl furanidones-3. They found that the 2,2,5,5-tetraalkyl furanidones-3 enter the condensation with ethyl formate according to the Claisen reaction. In carrying out the reaction in absolute ether with finely ground sodium 4-oxymethylene-2,2,5,5-tetraalkyl furanidones-3 are formed (yield 56-66%).

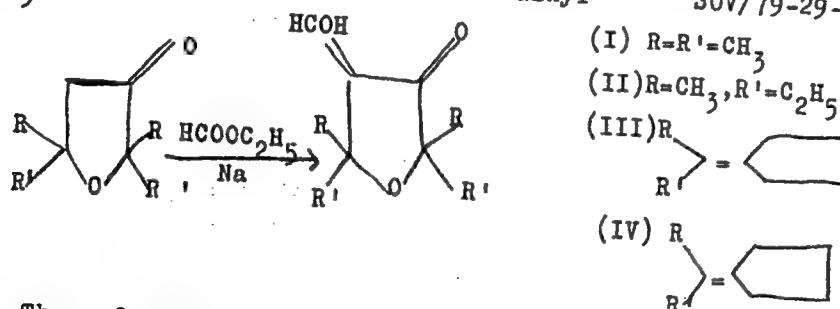
Card 1/3

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824730005-2

Synthesis of the 4-Oxymethylene-2,2,5,5-tetraalkyl Furanidones-3

SOV/79-29-6-42/72



These furanidones are crystalline products very unstable in air. They must be stored in dark glasses if possible in unpurified state. They take a cherry-red color with FeCl_3 and form green copper salts with copper acetate. The absorption spectra of these copper salts in methanol show in the ultraviolet range the maxima characteristic of the copper salts of the β -dicarbonyl compounds. The percent content of the enol form was determined according to K. Meyer (Ref 2) (Table). The data in the table show that the β -ketoaldehydes of the 2,2,5,5-tetraalkyl furanidine series as well as of the alicyclic series (Refs 3,4) are a mixture of the formyl and oxymethylene form which is in equi-

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Synthesis of the 4-Oxymethylene-2,2,5,5-tetraalkyl
Furanidones-3

SOV/79-29-6-42/72

librium. In this case the latter considerably predominates. The data on the table also show that with the increase of the radicals in the positions 2 and 5 of the furanidine cycle the enolization of the formyl group increases in position 4. In the action of the benzoyl chloride on the pyridine solutions of the compounds (I), (III), (IV) the corresponding O-benzoates (VII), (V) and (IX) were obtained. In the case of the action of the sodium compounds of the same oxymethylene ketones the compounds (VI), (VIII) and (X) were obtained (Scheme 2). There are 1 table and 4 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: May 9, 1958

Card 3/3

5 (3)

AUTHORS:

Korobitsyna, I. K., Zhukova, I. G.,
Yur'yev, Yu. K.

SOV/79-29-7-20/83

TITLE:

Reactions of the 4-Bromo- and 4-Oxy-2,2,5,5-tetraalkyl Furanidones-3 (Reaktsii 4-brom- i 4-oksi-2,2,5,5-tetraalkil-furanidonov-3)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2190-2196 (USSR)

ABSTRACT:

The bromine in the 4-bromo-2,2,5,5-tetramethyl furanidone-3 is not substituted by the oxy group (in the hydrolysis with soda solution), by iodine (in the action of KJ), by the thio-cyanogen group (in heating with potassium thiocyanate), by the amino group (with ammonia); only in the reaction with sodium cyanide the corresponding nitrile is formed in good yield (Refs 1, 2). The authors used such halides for the synthesis of the condensed systems which contain furanidine- and thiazole rings. In the reaction with crystalline sodium sulphide at 135-140° only the 4-bromo-2,2,5,5-tetraalkyl furanidones-3 easily separated HBr, with the condensation taking place under the formation of the γ -diketone with two furanidine rings (Scheme 1). In the hydrogenation of (I) in the presence of nickel the γ -ketone (IV) resulted [the di-(2,2,5,5-tetramethyl

Card 1/2

Reactions of the 4-Bromo- and 4-Oxy-2,2,5,5-tetraalkyl Furanidones-3 30V/79-29-7-20/83

furandione-3-yl-4)], which with aniline led to dianil (V) (Scheme 2). Already earlier (Ref 3) the authors used the furanidones (VI) for the synthesis of nitrogenous heterocyclic systems with the furanidine ring. By this method the compounds (VII) and (VIII) were obtained from 4-oxy-2,2,5,5-tetramethyl- and 4-oxy-2,2,5,5-bis(pentamethylene) furanidone-3 (Scheme 3) which are weak acids. The furanidones (VI) react with ammonium thiocyanate in melting (150°) to form furanidine thiazoles (IX), (X), (XI) (Scheme 4). A scheme of the formation of these compounds is suggested. There are 8 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)
SUBMITTED: July 2, 1958

Card 2/2

5 (3)

AUTHORS:

Korobitsyna, I. K., Zhukova, I. G.,
Yur'yev, Yu. K.

SOV/79-29-7-21/83

TITLE:

4-Acetyl-2,2,5,5-tetraalkyl furanidones-3 (4-Acetil-2,2,5,5-
-tetra-alkilfuranidony-3)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2196-2201 (USSR)

ABSTRACT:

Earlier (Ref 1) the authors showed that 4-acetyl-2,2,5,5-tetramethyl furanidone-3 forms in the thermal isomerization of the enol acetate of 2,2,5,5-tetramethyl furanidone-3. In the present paper they tried to apply this method also to the synthesis of the higher homologs of 4-acetyl-2,2,5,5-tetraalkyl furanidones-3. It was found that in passing the enol acetate of 2,5-dimethyl-2,5-diethyl furanidone-3 through a quartz tube filled with glass wool and which had been heated to 500° this enol acetate isomerizes into 4-acetyl-2,5-dimethyl-2,5-diethyl furanidone-3 (15,6% yield) (Scheme 1). Further investigations showed that with increasing radicals in the positions 2 and 5 the yields of the products of thermal isomerization in the enol acetates of 2,2,5,5-tetraalkyl furanidones-3 (of the corresponding 4-acetyl-2,2,5,5-tetraalkyl furanidones-3)

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4-Acetyl-2,2,5,5-tetraalkyl furanidones-3

SOV/19-29-7-21/83

are abruptly reduced. This method, however, is still the only one possible for the synthesis of 4-acetyl-2,2,5,5-tetramethyl furanidone-3 and of 4-acetyl-2,5-dimethyl-2,5-diethyl furanidone-3, since other experiments failed. The two oxy-ketones (III) and (IV) may occur as tautomeric forms of 4-acetyl-2,2,5,5-tetramethyl furanidone-3(II). 4-acetyl-2,2,5,5-tetramethyl furanidone-3 is enolized in a high degree in the direction of the exocyclic carbonyl group; it forms C- and O- derivatives according to the conditions of acylation. The β -diketones of the 2,2,5,5 tetraalkyl furanidine series require much more rigid conditions in the reactions leading to the condensed heterocyclic systems than the aliphatic or aromatic β -diketones. There are 8 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 2, 1958

Card 2/2

ZHDANOV, Yuriy Andreyevich; KOROBITSYNA, I.K., red.; CHIKNOVEROVA,
A.A., red.izd-va; MULINOVA, I.F., tekhn.red.

[Outline of methods of organic chemistry] Ocherki metodologii
organicheskoi khimii. Moskva, Izd-vo "Vysshaya shkola," 1960.
301 p.

(MIRA 14:4)

(Chemistry, Organic)

KOROBITSYNA, I.K.; IN' CHEN'-LE; YUR'YEV, Yu.K.

4-Methylene-2,2,5,5,-tetramethyl-3-furanidone. Zhur.ob.
khim. 30 no.7:2214-2218 J1 '60. (MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet.
(Furanidone)

KOROBITSYNA, I.K.; OLEYNIX, A.F.; YUR'YEV, Yu.K.

Acylhydrazones of 2,2,5,5-tetraalkyl-3,4-furanidinediones. Zhur.
ob. khim. 30 no.9:2820-2825 S '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet.
(Furandione)

KOROBITSYNA, I.K.; PIVNITSKIY, K.K.

Reactions of 3-dihydrofuranone with diazomethane. Zhur. ob. khim.
30 no.12:4008-4016 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet.
(Furanone) (Methane)

KOROBITSYNA, I.K.; PIVNITSKIY, K.K.

3,4-Tetraalkylfuranidinediones in the synthesis of 3,5- tetraalkyltetrahydropyranidiones. Zhur. ob. khim. 30 no.12:4016-4023 D '60.
(MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet.
(Furandione) (Pyranidione)

80059

S/020/60/132/01/33/064
B011/B126

AUTHORS: Korobitsyna, I. K., Pivnitskiy, K. K.

TITLE: A New Method of Synthesizing 2,2,6,6-Tetraalkyl-tetrahydropyrandiones-3,5

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 1, pp. 127-129

TEXT: The authors report on the reaction between diazomethane and monoketones and α -diketones of the furanidine series. The action of diazomethane on 2,2,5,5-tetramethylfuranidone-3 produces 2,2,6,6-tetramethyl-tetrahydropyrone-3 with impurities of 2,2,6,6-tetramethyl-tetrahydropyrone-4. The best results, that is a yield of 55-58% of the main product, are obtained from the reaction in situ of N-nitroso-N-methylurethane or of N-nitroso-N-methylurethylan. The structure of 2,2,6,6-tetramethyl-tetrahydropyrone-3 (a representative of the previously almost unknown class of tetrahydro- β -pyrones) was shown through its oxidation with selenium dioxide to Δ^4 -2,2,6,6-tetramethyldihydropyrone-3-ol-4. The benzyl rearrangement of the latter led to 3-oxy-2,2,5,5-tetramethylfuranidyl-3-carboxylic acid. The same acid was gained from 2,2,5,5-tetramethylfuranidone-3. The authors have shown in a series of examples that the reaction of tetraalkyl-

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824730005-2

A New Method of Synthesizing 2,2,6,6-Tetraalkyl-tetrahydropyrandiones-3,5

S/020/60/132/01/33/064
B011/B126

furanidinediones-3,4 with an ethereal solution of diazomethanes leads to an expansion of the ring between 2 carbonyl groups. The resulting 2,2,6,6-tetraalkyl-tetrahydropyrandiones-3,5 are enolized under the given conditions, and methylated by the diazomethane excess. As a result, methyl esters of 2,2,6,6-tetraalkyl-tetrahydropyrandiones-3,5 are produced as reaction products. The esters of the enol form are easily hydrolyzed by heating with HCl, and give 2,2,6,6-tetraalkyl-tetrahydropyrandiones-3,5. This reaction can serve as a convenient way of synthesizing the above-mentioned β -diketones of the tetrahydropyrane series. These β -diketones easily form different derivatives. The ultraviolet absorption spectra of the methanolic solutions of 2,2,6,6-tetraalkyl-tetrahydropyrandiones-3,5 and their methyl esters show an intensive peak in the region of 250 m μ (log ϵ 4.6). This shows a far-reaching enolization of these β -diketones in methanolic solvents and also the lack of an inner molecular hydrogen bond. It follows from the ultraviolet spectra of these β -diketones that they are fully enolized in methanol, and fully dissociated in an NaOH solution. The authors believe that only the hemiketal form of 2,2,5,5-tetraalkyl-furanidinediones-3,4 is capable of reacting with diazomethane under expansion of the ring, since they exist in this form in methanolic solutions. The authors explain that a higher yield of the methyl ester of 2,2,6,6-tetramethyl-tetra-

Card 2/3

KOROBITSYNA, I.K.; IN'CHEN'-LE [Yin Ch[ên-lieh]; YUR'YEV, Yu.K.

Reactions of the methylene group of 2,2,5,5-tetraalkyl-3-furanidones. Zhur. ob. khim. 31 no.3:836-840 Mr 161.

(MIRA 14:3)

1. Moskovskiy gosudarstvennyy universitet.
(Methylene group)
(Furan)

KOROBITSYNA, I.K.; MARINOVA, G.V.; YUR'YEV, Yu.K.

Condensation of 2,2,5,5-tetraalkyl-3-furanidones with aldehydes
of aromatic nature. Zhur.ob.khim. 31 no.7:2131-2133 J1 '61.

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Furandione) (Aldehydes) (MIRA 14:7)

KOROBITSYNA, I.K.; POPOVA, I.I.; GAYDAMOVICH, N.N.; YUR'YEV, Yu.K.

Properties of 4-hydroxymethylen-2,2,5,5-tetraalkyl-3-furandiones.
Zhur.ob.khim. 31 no.8:2542-2548 Ag '61. (MIRA 14:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.
Lomonosova.

(Furandione)

KOROBITSINA, I.K.; IN' CHEN'-LE [Yin Ch 'sh-le]

Furanidinebenzopyrylium salts. Zhur.ob.khim. 31 no.8:2548-
2552 Ag '61. (MIRA 14:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Benzopyrylium compounds)

KOROBITSYNA, I.K.; YUR'YEV, Yu.K.; IN' CHEN'-LE [Yin CH'en-le];
DAVYDOVA, A.F.; GAYDAMOVICH, N.N.

Furanidino-pyrazoles. Zhur.ob.khim. 31 no.12:3921-3926 D '61.
(MIRA 15:2)

(Pyrazole)
(Furan)

BEGIDOV, S.Kh.; D'YAKONOV, I.A.; KROBITSYNA, I.K.

Synthesis and dehydration of di-tertiary γ -glycols containing
the cyclopropyl radicals. Zhur.ob.khim. 33 no.7:2431 J1 '63.
(MIRA 16:8)

1. Leningradskiy gosudarstvennyy universitet.
(Glycols)

KOROBITSYNA, I.K.; RODINA, L.L.

Synthesis of diazo ketones of the furaridine (tetrahydrofuran) series. Zhur. ob. khim. 34 no.9:2851-2854 S '64.

(MIRA 17:11)

1. Leningradskiy gosudarstvennyy universitet.

S/148/62/000/012/003/008
E071/E151

AUTHORS: Psarev, V.I., and Korobiy, O.I.

TITLE: Influence of the state of the solid solution on the kinetics of coagulation and dispersion of the carbide phase in steels

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no.12, 1962, 103-109

TEXT: The influence of the state of the matrix phase, the grain boundaries and of grain size on the coagulation of carbides was investigated for the steels U15 (ShKh15) (1.13% C, 1.53% Cr, 0.44% Mn), Y17 (U17) (1.67% C), and for a nickel steel (1.17% C, 1.5% Ni) made from Armco iron in a high frequency furnace in argon atmosphere. The specimens were water-quenched from 1100 °C, annealed at 620-630 °C and given isothermal treatments at various temperatures; in addition they were reheated and quenched from various temperatures between 950 and 1150 °C. From the number and mean radii of the carbide particles, calculations were made of the linear velocity of their growth and of the two parameters of the coagulation process: d - parameter characterising the slowing
Card 1/3

Influence of the state of the solid... S/148/52/000/012/003/008
E071/E151

down of the coagulation in the later stages of the process; and β - parameter characterizing the acceleration of the coagulation in the early stages. It was shown that the velocity of coagulation, the degree of dispersion of the carbide phase and the degree of slowing down of the process largely depend on the state of the α and γ solid solutions. The higher the hardening temperature, the larger will be the grain size of the solid solution, the more dispersed will be the carbide phase and the higher will be the hardness of the steel throughout the course of the coagulation process and vice versa. The values of parameter β are higher for specimens hardened from lower temperatures, and those of parameter α are higher for specimens hardened from higher temperatures. Conclusions: the process of coagulation of carbides along grain boundaries and other weak places is determined not only by the diffusion coefficient, but also by changes in the solid solution. It is necessary to consider the influence of an alloying element on the state of the matrix of the solid solution (bond forces, presence of defects, grain size, etc) as well as on changes of the latter (intensity of healing
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Influence of the state of the solid... S/148/62/000/012/003/008
E071/E151

of lattice defects, mobility of matrix grain boundaries, etc)
during the process of heating.
There are 5 figures and 1 table.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet
(Chernovitsy State University)

SUBMITTED: January 23, 1962

Card 3/3

DUBROV, Nikolay Fedorovich; LAPKIN, Nikolay Iosifovich. Prinimal
uchastiye ZASUKHA, P.F.; KOROBKA, B.A., retsenzent;
MIRONOV, Leonard Vladimirovich; KRYZHOVA, M.L., red. izd-va;
BEKKER, O.G., tekhn. red.

[Electrical steels] Elektrotekhnicheskie stali. Moskva, Metal-
lurgizdat, 1963. 383 p. (MIRA 16:7)
(Steel--Magnetic properties)

E 32908-65 EMI(m)/EMA(d)/EMP(t)/EMP(k)/EMP(b) PR-1 MW/JO/HW
ACCESSION NR: AP5000561 S/0133/64/000/012/1127/1128

Y. Golik, B. A. Ovchinnikova, V. I. Smirnov, N. S. Serebryakov,

NO. 12, 1964, 1127-1128

Silver, V. V. Morogov and V. A. Milkevich who initially tested in 1964. The next
was published in 1966. The next step was in removing

ment. in up to 10000 kW generators and magnetostriction transformers having a uniform field of acoustical emission. Orig. art. has: 1 figure.

ASSOCIATION: Ural'skiy n. -i. Institut chernykh metallov.(Urals Scientific Research Ferrous Metallurgy Institute); Varkh-Isetskiy metallurgicheskiy zavod (Upper Iset' Metallurgical Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NR REF SOV: 001

OTHER: 000

Card 2/2

FEDORUK, S.G.; ROMANYUK, V.K.; KOROBKA, I.A.

Combination of pernicious anemia with polyposis gastrica. Vrach.
delo no.4:419 Ap '59. (MIRA 12:7)

1. Kafedra fakul'tetskoy terapii (zav. - prof. N.B. Shchupak)
Chernovitskogo meditsinskogo instituta.
(ANEMIA) (STOMACH--TUMORS)

KOROBKA, I.I.; MAS'KO, A.K.

Read construction in the Ketevka District. Avt.der. 19 no.8:
30 Ag '56. (MIRA 9:10)
(Ketevka District--Read construction)

KOROBKA, L. A.
USSR/Chemistry - Spectral analysis

Card : 1/1

Authors : Tolmachev, V. N., and Korobka, L. A.

Title : Spectrophotometric investigation of reactions having importance in colorimetry. Part 1.- Complex compounds formed by nickel ions with 2-nitroso-1-naphthol-4-sodium sulfonate.

Periodical : Zhur. Anal. Khim., 9, Ed. 3, 134 - 140, May-June 1954

Abstract : Data are presented on the reaction of complex formation, which takes place between nickel ions and 2-nitroso-1-naphthol-4-sodium sulfonate. The formation of two complexes - NiR^+ and NiR_2^- in solutions containing Ni^{2+} -ions and 2-nitroso-1-naphthol-4-sulfonate-ions is explained. Molar extinction coefficients and the instability constants of these complexes were determined in relation to the pH value of the solution. Thirteen references: 7-USSR, 2-German, 1-English, 1-Czech and 2-French. Tables; graphs.

Institution : State University, Scient. Research Institute of Chemistry, Kharkov

Submitted : Febr. 8, 1954

KOROBKA, L.A.

137-58-3-6228

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 255 (USSR)

AUTHORS: Yermolayeva, Ye. V., Korobka, L. A.

TITLE: Polarographic Determination of Al_2O_3 , Fe_2O_3 , and TiO_2 in Aluminosilicate Materials (Polyarograficheskoye opredeleniye Al_2O_3 , Fe_2O_3 i TiO_2 v alyumosilikatnykh materialakh)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. in-t ogneuporov, 1957, Vol 2, pp 84-89

ABSTRACT: The authors present a method of polarographic determination of Al, Fe, and Ti in aluminosilicate materials containing 20-50 percent Al_2O_3 , up to 5 percent Fe_2O_3 , and up to 3 percent TiO_2 . A photographically recording polarograph of Geyrovskiy design was employed for this purpose. The Al is determined against a background of KCl and NaCl at a pH of 3.5-3.8; K, Na, Ca, Mg, Fe, and Ti do not interfere with the polarographic process, and the Si is removed at the outset with the aid of HF. Introduction of citric and tartaric acids displaces the Al wave into the region of the reduction of alkali metals. Fe^{+++} is polarographed in the form of a citric acid complex in an ammoniacal medium with a

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Ti, and Fe. The precipitate is dissolved in HCl and filled up to a volume of 100 cc, after which the Al, Ti, and Fe are determined from various aliquot portions. It is essential that Ti be polarographed from a freshly prepared solution; solutions of Al and Fe preserve a constant wave height even after a

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824730005-2

Card 2/2

KOROBKA, L.A.

137-58-3-6232

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 256 (USSR).

AUTHORS: Yermolayeva, Ye. V., Korobka, L. A.

TITLE: Polarographic Determination of $Na_2O + K_2O$ in Various Refractory Materials (Polyarograficheskoye opredeleniye $Na_2O + K_2O$ v razlichnykh ogneupornykh materialakh)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. in-ta ogneuporov, 1957, Vol 2, pp 89-93

ABSTRACT: A description of a polarographic method used in the determination of the sum of alkali metals in various refractory materials on a background of tetraethylammonium iodide. The $E_{1/2} Na = -2.11$ v, and the $E_{1/2} K = -2.13$ v. The role of additional ingredients, temperature, and concentration of the background medium were studied. The presence of up to 5 percent of Mg and Al does not affect the determination of Na and K in amounts

KOROBKA, E. I.

USSR/Chemistry Crystallization

Card : 1/1 Pub. 151' - 7/35

Authors : Bergman, A. G., Kislova, A. Y., and Korobka, E. I.

Title : Investigation of a ternary mutual adiagonal-zone type system composed of lithium and potassium sulfates and molybdates

Periodical : Zhur. ob. khim. 24, Ed. 7, 1127 - 1135, July 1954

Abstract : The crystallization surface of a ternary mutual adiagonal-zone type system composed of Li_2MoO_4 - Li_2SO_4 and K_2SO_4 - K_2MoO_4 , was investigated by the visual polythermal method. It was found that the diagonal sections in the crystals are unstable and do not participate in the triangulation of the system. The reaction of formation of complexes, oriented on opposite sides of the square and its effect on the reaction of volumetric decomposition, are described. Two USSR and 1 German reference. Tables, graphs.

Institution : The Agricultural Institute, Kuban

Submitted : February 3, 1954

KOROBKA, E. I.

✓ Simplified calculation of component weight for investigation of salt systems by melting-point or solubility methods.
B. I. Korobka, *Izvest. Sektsiya Fiz.-Khim. Anal., Inst. Khim. Akad. Nauk S.S.S.R.* 26, 91-8 (1955).—By the method of addn. of a substance to the original material (which may be a single component or a mixt. of 2 or 3) in predetd. ratio, considerable time can be saved. For binary systems $H_1 = M_1 H_2 X / M_2 (100 - X)$, where H_2 and H_1 are wts. of 1st and 2nd components, resp.; M_2 and M_1 are the corresponding mol. wts.; and X = mol. % of added component. If in general $M_1 H_2 / M_2 = 1$ is used for all systems, then $X/(100 - X)$ is applicable to all systems and can be taken from tables of X vs. $X/(100 - X)$. To avoid excessive wt. in the upper end of the curve fractional quantities can be used. For low percentage compn. a multiplying factor can be used. For the ternary system $H_3 = [(M_1 H_2 / M_2) + (M_2 H_1 / M_1)] [X / (100 - X)]$, where H_2 and H_1 are wts. of the 1st and 2nd components, the sum of which is taken as a given vol. % corresponding to $n\%$ A and $m\%$ B where $n + m = 100\%$. H_3 = wt. of the 3rd component. M_1 , M_2 , M_3 are mol. wts.; X = mol. % of additive. Then $[(M_1 H_2 / M_2) + (M_2 H_1 / M_1)] [(M_3 n / 100) + (M_3 m / 100)] = 1$, $H_3 = X / (100 - X)$. Thus the ternary system becomes similar to a binary system. Examples are given. V. N. Bednarski

5(4)

SOV/78-4-1-22/48

AUTHORS:

Bergman, A. G., Korobka, Ye. I.

TITLE:

The Melting Diagram of the Ternary Reciprocal System of Sulphates and Molybdates of Lithium and Sodium (Diagramma plavkosti troynoy vzaimnoy sistemy iz sul'fatov i molibdatov litiya i natriya)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 1, pp 110-116 (USSR)

ABSTRACT:

The system $\text{Li, Na} \parallel \text{SO}_4, \text{MoO}_4$ was investigated by a visual-thermal method. The binary systems $\text{Na}_2\text{MoO}_4\text{-Na}_2\text{SO}_4$, $\text{Na}_2\text{SO}_4\text{-Li}_2\text{SO}_4$, $\text{Na}_2\text{MoO}_4\text{-Li}_2\text{MoO}_4$ were investigated and partly corrected. The melting diagram of the ternary reciprocal system $\text{Li, Na} \parallel \text{SO}_4, \text{MoO}_4$ consists of 18 ranges of crystallization, seven of them belonging to complex compounds. Ten triangular phases are formed in the system. The triangulation of the ternary reciprocal system and the triangular phases are shown in figure 5. In the triangular phases complex exchange and complex-forming reactions take place. The system

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SOV/78-4-1-22/48

The Melting Diagram of the Ternary Reciprocal System of Sulphates and Molybdates of Lithium and Sodium

$\text{Li, Na} \parallel \text{SO}_4, \text{MoO}_4$ is characterized by numerous complex formations of the anionic and cationic type and by the formation of a heteroionic complex and polymorphy of all components. There are 6 figures, 2 tables, and 20 references, 11 of which are Soviet.

ASSOCIATION:

Kubanskiy sel'skokhozyaystvennyy institut (Kuban' Agricultural Institute)

SUBMITTED:

July 22, 1957

Card 2/2

SOV/78-4-8-29/43

5(2)

AUTHORS:

Bergman, A. G., Korobka, Ye. I.

TITLE:

The Fusibility in the Ternary System of Sulphates and Molybdates of Sodium and Potassium (Plavkost' v troynoy sisteme iz sul'fatov i molibdatov natriya i kaliya)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8, pp 1885-1892 (USSR)

ABSTRACT:

The authors continue their investigation of sulphate and molybdate systems of the alkali metals (Refs 1,2) with the system mentioned in the title. The mutual system investigated is very complicated. It forms numerous different complexes besides continuous series of solid ternary solutions which decompose in different way. The melting diagram of the system $\text{Na, K} \parallel \text{SO}_4, \text{MoO}_4$ consists of 10 crystallization fields of complex compounds, a field of the component Na_2MoO_4 and a field of continuous solid solutions of the three other components. The complex compounds strongly differ: 4 binary complexes are formed, moreover, in the decomposition of the solid solution of sodium and potassium sulphate three inner binary and also

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824730005-2

The Fusibility in the Ternary System of Sulphates and Molybdates of Sodium and Potassium

one ternary hetero-ion complex are formed. The 29 curves of the joint crystallization intersect in 17 ternary points, 2 of which are eutectic. The crystallization scheme consists of 4 closed cycles. The temperature decrease is unimportant; the melting point of the eutectic point E_8 at 618° is only by 66° lower than the melting temperature of Na_2MoO_4 , the most easily fusible component. This slight temperature decrease is explained by the wide range of the solid solutions. There are 7 figures, 2 tables, and 25 references, 19 of which are Soviet.

ASSOCIATION:

Kubanskiy sel'skokhozyaystvennyy institut (Kuban' Institute of Agriculture)

SUBMITTED:

March 29, 1958

Card 2/2

5(2)

AUTHORS:

Bergman, A. G., Korobka, Ye. I.

SOV/78-4-9-24/44

TITLE:

The Fusibility in the Ternary System of Molybdates of Lithium, Sodium, and Potassium

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 9, pp 2072-2076 (USSR)

ABSTRACT:

A comparison of the system mentioned in the title with the systems of alkali metals and other anions exhibits an increasing complexity of the character of the systems as the radius of the anion increases. On the basis of 25 interior cross sections (Table 1, Figs 1-4) the crystallization surface was drawn in the system $\text{Li, Na, K} \parallel \text{MoO}_4$. It contains 5 ranges of binary complex compounds, one interior range of ternary molybdate, and three ranges of the components. Transformations occur in the ranges of Li_2MoO_4 , Na_2MoO_4 and $\text{Li}_2\text{MoO}_4 \cdot \text{K}_2\text{MoO}_4$. The twenty curves of joint crystallization converge in 12 tertiary points, two of which are eutectic. By means of triangulation 8 phase triangles were obtained (Fig 5) whose nonvariant points are listed in table 2. The crystallization pattern (Fig 6) exhibits a closed cycle of

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The Fusibility in the Ternary System of Molybdates of Lithium, Sodium, and Potassium SOV/78-4-9-24/44

the ternary molybdate and two ramifications. Accordingly, the system $\text{Li, Na, K} \parallel \text{MoO}_4$ belongs to the ternary belt systems with an inner ternary compound and binary complex compounds on all sides. There are 6 figures, 2 tables, and 14 references, 12 of which are Soviet.

ASSOCIATION: Kubanskiy sel'skokhozyaystvennyy institut
(Kuban' Agriculture Institute)

SUBMITTED: April 14, 1958

Card 2/2

YUKEL'SON, M.D.; SEREBRINSKAYA, R.A.; MOROBKA, Z.I.

Utilize the great potentials for the increase of sugar production
in the Kuban. Sakh. prom. 37 no.8:56-57 Ag '63. (MIRA 16:8)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.
(Kuban—Sugar industry)

KOROBKEVICH, O.V.; SKORBILINA, T.N., red.; NEYMAN, M.I., red.

[For elderly people] Dlia pozhiykh. Moskva, Meditsina,
1964. 252 p. (MIRA 17:5)

KOROBKIN, A.A., inzhener.

Chain conveyer with platforms for workpiece shifting. Der.prom.
6 no.6:17 Je '57. (MLRA 10:8)

1. Gomel'skiy derevesbrabatyvayushchiy kombinat.
(Conveying machinery)

SOV/149-58-5-10/18

AUTHORS: Korobkin, A.A. and Plaksin, I.N.

TITLE: Investigation of the Effect of the Concentration of Platinum and Free Hydrochloric Acid on Sorption of the Complex $[PtCl_6]^{2-}$ Ion by Ion-exchangers

(Issledovaniye vliyaniya kontsentratsii svobodnoy solyanoy kisloty i platiny na sorbtsiyu kompleksnogo iona $[PtCl_6]^{2-}$ ionitami)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya, 1958, Nr 5, pp 90 - 97 (USSR)

ABSTRACT: The five ion-exchange resins used in the present investigation were selected as being representative of those most widely used in industry (resins AN-2F, AN-2FG, EDE-10P, N-O and AN-1) and also because quantitative desorption is more easily obtained in the case of weakly or moderately strong basic exchangers such as AN-2F and EDE-10P. The code numbers, moisture content (%) and the ash content (in mg per 300 mg resin) of the resins are given in a table on p 91 (owing to the low value of the ash content it was neglected in the analytical weight measurements).

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SOV/149-58-5-10/18

Investigation of the Effect of the Concentration of Platinum and
Free Hydrochloric Acid on Sorption of the Complex

$[\text{PtCl}_6]^{2-}$ Ion by Ion-exchangers

Solutions containing 0.5, 1.0, 2.0, 4.0 and 8% HCl and 0.5, 1.0, 2.0, 4.0 and 8.0 g/litre platinum (in all combinations) were used. All the investigated resins, except AN-1, were used as supplied, i.e. in the chloride form. Resin AN-1 supplied in the sulphate form was converted to chloride form by 24 hour treatment first with a 5% sodium carbonate solution and then with a 3% hydrochloric acid solution. The experiments were carried out in the following manner. The starting solutions were prepared by dissolving refined platinum in aqua regia, transferring the filtered solutions to calibrated flasks, adding a calculated amount of HCl and leaving overnight to ensure the formation of complexes since no reliable results could be obtained with freshly prepared solutions. The quantity of solution used in each experiment was calculated to contain 50 mg Pt. To this quantity of the solution 100 mg of resin (particle size -20 + 35 mesh), previously soaked in distilled water for 48 hours and then

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Investigation of the Effect of the Concentration of Platinum and Free Hydrochloric Acid on Sorption of the Complex

$[\text{PtCl}_6]^{2-}$ Ion by Ion-exchangers

dehydrated by filtering, was added and the mixture maintained at $19 \pm 2^\circ \text{C}$ was mechanically stirred for 4 hrs. The resin was then separated from the solution with the aid of an ash-free filter, washed thoroughly with distilled water and burnt (together with the filter) in a muffle furnace at $900 - 1000^\circ \text{C}$, after which the obtained sponge was weighed. The results are reproduced graphically in Figures 1-8 which show the sorption of Pt (in mg-equiv./g of air-dry resin) as a function of the concentration of Pt (in g/litre) and HCl (%) in the solution. It appears that the two investigated factors have an opposite effect on sorption of Pt by all the resins used in the present investigation. With the increasing Pt concentration, sorption increases although at high Pt concentrations the rate of increase tends to approach zero. Increasing the HCl concentration results in a decrease of sorption. The sorption/Pt concentration relationship is somewhat different for the

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SOV/149-58-5-10/18

Investigation of the Effect of the Concentration of Platinum and Free Hydrochloric Acid on Sorption of the Complex

$[PtCl_6]^{2-}$ Ion by Ion-exchangers

resin EDE-10P (Figure 7). In this case, sorption of Pt in the 0.5-2.0 g/litre concentration range increases at all concentrations of HCl. However, when the Pt concentration increases to 4 g/litre, sorption of Pt slightly decreases at low HCl concentrations, while at high HCl concentrations it remains constant to increase again in the 4.0-8.0 g/litre Pt concentration range. This phenomenon can be explained in the following manner. Tetravalent platinum is partially reduced by the resin to the bivalent state. As a result two Cl^- ions separated from each molecule of the platino-hydrochloric acid in the absence from the solution of excess ions of the opposite sign, react with the hydrogen of the amine group forming two molecules of HCl, which lowers the pH number of the solution and consequently decreases sorption of platinum. In all probability, the partial reduction of tetravalent Pt and the subsequent reaction of the Cl^- ions with the active groups of the resin is accompanied by an increase of the

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SOV/149-58-5-10/18

Investigation of the Effect of the Concentration of Platinum and Free Hydrochloric Acid on Sorption of the Complex

$[\text{PtCl}_6]^{2-}$ Ion by Ion-exchangers

basicity of the resin which cannot but increase the sorption of a weak electrolyte such as platino-hydrochloric acid (Ref 10). If this increase is not observed at all concentrations of HCl of the 4 g/litre Pt solution, it is only because the increase in basicity of the resin is associated with the formation of HCl which weakens the effect of this increase. The following conclusions are drawn.

- 1) Of the five investigated resins the following are characterised by high sorption capacity (up to 3.8 mg-equiv./g of air-dry resin): EDE-10P, AN-2F, AN-2FG and N-O.
- 2) The obtained graphs can, in the first approximation, serve as nomographs for calculations both in refining processes and for analytical purposes. By extrapolating these graphs (particularly in the case of resin EDE-10P) the concentration of the HCl eluant can be calculated.
- 3) Both the AN-1 resin and the MMG-1 and AN-8 resins, which were also studied, are characterised by comparatively low

Card5/6

KOROBKIN, A. A., Candidate Tech Sci (diss) -- "The use of ion-exchange tars for extracting certain metals of the platinum group from solutions". Moscow, 1959.

15 pp (Min Higher Educ USSR, Krasnoyarsk Inst of Nonferrous Metals im M. I.

Kalinin, Chair of the Metallurgy of Noble Metals), 150 copies (KL, No 23, 1959, 166)

18(6)

SOV/163-59-1-4/50

AUTHORS: Korobkin, A. A., Plaksin, I. N.

TITLE: The Influence of the Principal Factors on the Sorption of a Complex Ion $[PdCl_6]^{4-}$ by Some Anionites Under Equilibrium Conditions (Vliyaniye osnovnykh faktorov na sorbtseyu kompleksnogo iona $[PdCl_6]^{4-}$ nekotorymi anionitami v ravnovesnykh usloviyakh)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 1, pp 14-18 (USSR)

ABSTRACT: This paper gives an account of the influence of the concentration of palladium and of the free hydrochloric acid, of the contact time and of temperature upon the sorption of the complex ion $[PdCl_6]^{4-}$ by the anionites EDE-10P and AN-2f under equilibrium conditions from pure solutions of palladium hydrochloric acid. The experimental procedure is described first. The sorption of palladium in resin samples (100mg) was determined. The volume of the solution was adjusted at a certain concentration of palladium and of the acid so that in each experiment 50 mg of metal and 100 mg of resin were present. The diagrams obtained show the follow-

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SOV/163-59..1-4/50

The Influence of the Principal Factors on the Sorption of a Complex Ion $[PdCl_6]^{4-}$ by Some Anionites Under Equilibrium Conditions

ing: 1) The sorption of palladium by the resins EDE-10P and AN-2f increases with increasing palladium concentration in the interval from 0.5 to 4.0 g/l. The sorption practically does not increase further in the interval from 4 - 8 g/l, especially if the acid concentration is below 2.0% of HCl. 2) If the acid concentration is increased, the sorption of the palladium ion by both resins decreases considerably. When the HCl concentration exceeds 4%, the nature of this decrease varies somewhat. On AN-2f the sorption decreases more slowly if the metal concentration is higher, whereas on EDE-10P a diminished concentration has the same effect. Moreover, an increase of the metal concentration with EDE-10P and a reduction with AN-2f a tendency is found of the palladium ion sorption to be directly dependent upon the hydrochloric acid concentration. This is for EDE-10P found at a metal concentration of 4.0 and 8.0 g/l in the solution. An explanation is offered for these differences in the dependence of the

$[PdCl_6]^{4-}$ ion sorption upon the HCl concentration: 1) It is shown that the rate of sorption is higher on the resin EDE-10P than on AN-2f, which can be explained by the different size of the pores and ducts in the grains of these resins. 2) The

Card 2/4

SOV/163-59-1-4/50

The Influence of the Principal Factors on the Sorption of a Complex Ion

 $[PdCl_6]^{4-}$ by Some Anionites Under Equilibrium Conditions

influence of the hydrochloric acid becomes effective primarily just prior to the moment at which the palladium ion is sorbed at the resin. It becomes manifest by an isolation of the sorbed ion from the reaction groups of the resin by the acid ions. This isolation effect is more pronounced at lower metal concentrations, higher acid concentrations and a smaller accessibility of the reaction groups of the resin. The size of the pores and ducts of EDE-10P is more favorable to rapid sorption, and the isolation influence is less effective; thus sorption proceeds normally. The reaction groups in AN-2f are located in less easily accessible ducts. Hence in most cases they cannot participate as easily in the reaction, as the ducts are primarily occupied by the acid ions. In a further diagram it is shown that the rate of sorption is dependent upon the type of resin. The sorption of $[PdCl_6]^{4-}$ ions on both resins increases only little with rising temperature. This is closely connected with the kinetic peculiarities of this ion, the diffusion rate of which appears

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3/149/60/000/005/007/015
A006/A001

AUTHOR: Korobkin, A.A.

TITLE: The Effect of Some Factors on the Sorption of a Complex $[\text{IrCl}_6]^{2-}$ Ion by Anion Exchanging Resins Under Static Conditions

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, 1960, No. 5, pp. 99-104

TEXT: The author investigated the effect of contact duration, temperature and concentration of iridium and free hydrochloric acid on the sorption of a complex $[\text{IrCl}_6]^{2-}$ ion by 3A3-10P (EDE-10P) and AH-2P (AN-2P) anion exchanging resins under static conditions, from pure solutions of irido-hydrochloric acid. Batches of 100 mg preliminary swollen commercial resin in chlorous form and 0.42-0.83 mm grain size were mixed with pure irido-hydrochloric acid solutions of various concentrations. The solution volume of each test was 50 mg metal per 100 mg resin. Experiments on the effect of contact duration and temperature on iridium sorption by resins were carried out in solutions with a constant Ir (1.0 g/l) and HCl (0.5%) concentration. Saturated bromine water in an amount of 4.0 volume percent was added to the solution. The effect of iridium and acid concentration was studied during a 4-hour contact at $20 \pm 1^\circ\text{C}$; 2 volume percent bromine

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3/149/60/000/005/007/015
A006/A001

The Effect of Some Factors on the Sorption of a Complex $[\text{IrCl}_6]^{2-}$ Ion by Anion Exchanging Resins Under Static Conditions

water was added. After mixing the resin was separated from the solution by filtration, washed with distilled water, carbonized on an electric heater and roasted in a muffle furnace at $900-1,000^\circ\text{C}$. The final product was determined by weighing on analytical scales the sponge, reduced in a hydrogen and cooled in a carbon dioxide current. The effect of temperature on iridium sorption was studied with the aid of a mixer placed in a thermostat with electric heating, the temperature of the thermostat was maintained with an accuracy of $\pm 2.0^\circ\text{C}$. The effect of iridium concentration on its sorption by EDE-10P resin was investigated at 0.5; 1; 2.4 and 8% hydrochloric acid concentration. The filtrates were analyzed after evaporation in a vacuum down to some milliliters at room temperature. The solution obtained was saturated with chlorous ammonium chloride and the chloro-iridate precipitated was filtrated from the yellow solution. The latter was acidified with some drops of aqua regia causing the precipitation of black ammonium chloro-iridate, over which a colorless solution remained. The experiments yielded the following results: during the process of iridium sorption from pure solutions under certain conditions, deep oxidizing and reducing processes take place. As a result, partial destruction of ignites, on the one hand, and partial reduction

Card 2/3

S/149/60/000/005/007/015
A006/A001The Effect of Some Factors on the Sorption of a Complex $[\text{IrCl}_6]^{2-}$ Ion by Anion
Exchanging Resins Under Static Conditions

of iridium up to the trivalent state on the other hand, are observed. The tests showed the high iridium sorption capacity of EDE-10P resin, and somewhat lower one of AN-2F resins from pure iridio-hydrochloric acid solutions. The tests on the effect of temperature on iridium sorption confirmed the possibility of separating this metal from the sum of platinum and palladium after its preliminary transfer into the trivalent state, using ion-exchanging resins. This appears clearly when comparing the data presented with those contained in references 5 and 6. There are 4 figures, 1 table and 6 references: 2 English and 4 Soviet. ✓

ASSOCIATION: Krasnoyarskiy institut tsvetnykh metallov (Krasnoyarsk Institute
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Department of Metallurgy of Precious Metals)

SUBMITTED: December 10, 1959

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Studying the effect of certain factors on the sorption of complex chloro acids Pt (IV), Pd (IV), Ir (IV), and Rh (III) by EDE-10P and AN-2F anionites. Sbor. nauch. trud. GINTSVETMET no.33:88-97 '60. (MIRA 15:3)
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Performance of a small peat dredging shovel. Torf. prom. 29 no. 5, 1952

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bashnia emest'iu 300 kub. m; steny kirpichnye. Proekt no.1145.
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SOURCE: RZh. Fizika, Abs. 6 Zh172

AUTHORS: Korobkin, V. A.; Tereshchenko, A. I.

47

TITLE: Calculation of frequency tuning range of cylindrical cavities with transversely magnetized ferrite discs

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 127, 1962, Tr. Radiofiz. fak., v. 6, 29-34

TOPIC TAGS: cavity, slug tuning, ferrite, transverse magnetization

TRANSLATION: The range of the tuning of a cylindrical cavity by means of a transversely magnetized ferrite disc placed axially-symmetrical relative to the cavity axis is calculated. The calculation is by perturbation theory with quasi-static approximation of the internal field in the ferrite. It is shown that for the T_{11} mode with the ferrite disc placed at the end of the cavity, the degree of tuning depends on the angle between the direction of the external magnetic field relative to the direction of polarization of the high-frequency field. Expressions are presented for the frequency tuning in case of TE_{0n} oscillations in a cylindrical cavity and TEM oscillations in a coaxial cavity. Ye. Lebedeva.

DATE ACQ: 15Jul63

Card 1/1

SUB CODE: GE, SP

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